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(54) Title: RAPID NUCLEIC ACID ISOLATION METHOD AND COMPOSITIONS THEREFORE

(57) Abstract: A method of isolating RNA from a biological specimen is provided, whereby a biological specimen is contacted with an admixture of (i) a mono-phasic solution of phenol and guanidine isothiocyanate and (ii) a lysis buffer under conditions and for a time appropriate to form a homogenate. Next, the homogenate is admixed with a water-immiscible organic solvent under conditions and for a time appropriate to form an aqueous phase and an organic phase. The aqueous phase is then contacted with a C₁-C₄ lower alcohol under conditions and for a time to form a precipitated RNA. The precipitated RNA is then recovered by centrifugation and decanting of the aqueous phase. The method can also be used to isolate total RNA. In an alternative embodiment, the biological sample is contacted with (i) a lysis buffer, and (ii) a mono-phasic solution of phenol and guanidine isothiocyanate under conditions and for a time appropriate to form a homogenate. The remaining steps of this embodiment are the same as above.

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